#### OFFICE OF ENVIRONMENTAL QUALITY CONTROL BUREAU OF AIR QUALITY PSD, NSPS (40CFR60), NESHAP (40CFR63) CONSTRUCTION PERMIT

Santee Cooper (Pee Dee Generating Station) 2651 South Old River Road Pamplico, SC 29583

Permission is hereby granted to install two (2) supercritical tangentially fired boilers, burning pulverized bituminous coal and petcoke (up to 30% by weight of coal/petcoke blend) in either boiler. The boilers can fire ultra low sulfur fuel oil containing 0.0015% sulfur or less (or No. 2 fuel oil if ultra low sulfur fuel oil is not commercially available) or natural gas during startup and load shift to a maximum rate of 1656 million Btu/hr. Each boiler (B01 and B02) will supply steam to a single steam turbine/generator set. The new boilers are each rated at 5,700 million Btu/hr maximum heat input capacity with an output of 660 MW each. These boilers will be equipped with Low NO<sub>X</sub> burners (LNBs), two-level separated overfire air, Selective Catalytic Reduction systems (SCRs), Flue Gas Desulfurization (FGDs) (wet limestone scrubbers), and Electrostatic Precipitators (ESPs) for control of NO<sub>X</sub>, SO<sub>2</sub>, and PM/PM<sub>10</sub> emissions, respectively. These boilers will be subject to 40CFR60, Subparts A and Da, NO<sub>X</sub> Budget Plan, CAIR, CAMR, and Acid Rain requirements. Boilers B01 and B02 will be identified as emission units ID01 and ID02, respectively.

A coal handling system consisting of shaker railcar unloader, conveyors, storage pile, crusher tower, transfer tower, coal bunkers (6 silos and one central dust collector in each of the two sets) will be installed. This coal handling system will be subject to 40CFR60, Subparts A and Y. Petroleum coke will be delivered by rail or truck and stored separately from coal for subsequent blending with coal. The coal and petcoke handling systems will be identified as emission units ID03 (Coal), ID04 (Petcoke), and ID05 (Coal/Petcoke Crusher).

An ash handling system for each boiler will also be installed. Fly ash will be collected and loaded out through two fly ash silos. Bottom ash will be mixed with water and piped to an ash pond. The ash sludge may be dewatered for sale. The ash handling system will be identified as emission units ID09 (Fly Ash) and ID10 (Bottom Ash).

Two emergency generators (D01 and D02) rated at 1,500 KW each fired on ultra low sulfur fuel oil containing 0.0015% sulfur or less (or No. 2 fuel oil with 0.05% sulfur or less if ultra low sulfur fuel oil is not commercially available) will be provided for backup power. A 425 HP fire pump will be provided for fire protection. These units are exempt from construction permit requirements but the emergency generators will be subject to 40CFR60, Subparts A and IIII as well as 40 CFR 63, Subparts A and ZZZZ, and the fire pump will be subject to 40 CFR 60 Subparts A and IIII.

A limestone handling system will also be installed consisting of material transport, truck unloading, storage pile, conveyors, crusher, and silos. Portions of the limestone handling will be subject to 40CFR60, Subparts A and OOO. The limestone handling system will be identified as emission units ID06 (Limestone Handling) and ID07 (Limestone Crusher).

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A gypsum handling system will also be installed consisting of dewatering, conveyors to drops, storage piles, and truck loading. The gypsum conveyors will be subject to 40CFR60, Subparts A and OOO. The gypsum handling system will be identified as emission unit ID08.

A cooling tower system will also be installed consisting of two multi-cell towers. Each tower will have a nominal circulation rate of 287,100 gallons per minute with up to eight circulating water concentrations. The cooling tower system will be identified as emission unit ID11.

Several storage tanks will be installed for storing fuel oil, gasoline, diesel fuel, lube oil, anhydrous ammonia, turbine lube oil, sulfuric acid, sodium hydroxide, sodium hypochlorite, and organic acid. All storage tanks will be categorized as insignificant activities.

These processes will all be subject to SC Regulation 62.5, Standard No. 7 – "Prevention of Significant Deterioration" (PSD), as well as other state regulations described in the Special Conditions section of this permit.

### NOTWITHSTANDING ANY OF THE CONDITIONS LISTED BELOW, NO APPLICABLE LAW, REGULATION, OR STANDARD MAY BE VIOLATED.

#### CONDITIONS

- 1. All official correspondence, plans, permit application forms, and written statements are an integral part of this permit.
- 2. The owner/operator shall submit written notification to the Director of the Engineering Services Division of the date construction is commenced, postmarked no later than 30 days after such date, and written notification of the actual date of initial startup of each new or altered source, postmarked within 15 days after such date.
- 3. Approval to construct shall become invalid if construction is not commenced within 18 months after receipt of such approval, if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time frame. The Department may extend the 18-month period upon a satisfactory showing that an extension is justified. This request must be made prior to the permit expiration.
- 4. The owner or operator shall comply with all terms, conditions, and limitations of this permit.

This is pursuant to the provisions of Section 48-1-110, 1976 *Code of Laws of South Carolina*, as amended, and the *South Carolina Air Quality Control Regulation 61-62.1*, Section II and the *Code of Federal Regulations*, Title 40, Parts 60 (Subpart A), and 63 (Subpart A).

#### I. <u>STANDARD CONDITIONS</u>

**A.** This permit expressly incorporates all the provisions of *South Carolina Department of Health and Environmental Control Regulation 61-62.1*, Section II, Paragraph J and the *Code of Federal Regulations*, Title 40, Parts 60 (Subpart A), and 63 (Subpart A).

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#### II. SPECIAL CONDITIONS

#### A. EMISSION LIMITATIONS

Air pollutant emissions shall not exceed the following:

Unit ID	Equip ID	Desc.	Pollutant/ Standard	Limit	Reference Method	Regulation	State Only
01, 02	B01, B02	Boiler No. 1, Boiler No. 2	Opacity	20%, each	9	SC Regulation 61-62.5, Std. No. 1 40 CFR 60, Subpart Da	No
01, 02	B01, B02	Boiler No. 1, Boiler No. 2	PM (filterable)	Lesser of $0.6 \text{ lb/}10^6$ Btu or $57.84 \text{ P}^{-0.637}$ where P = heat input rate (each) (3-hr avg)	5, 5B or 17	SC Regulation 61-62.5, Std. No. 1	No
01, 02	B01, B02	Boiler No. 1, Boiler No. 2	PM (filterable)	0.015 lb/10 <sup>6</sup> Btu or 0.14 lb/MWh gross energy output, each (alternate limit 0.03 lb/10 <sup>6</sup> Btu and 99.9% reduction efficiency)	5, 5B or 17	40 CFR 60, Subpart Da	No
01, 02	B01, B02	Boiler No. 1, Boiler No. 2	PM (filterable)	0.015 lb/10 <sup>6</sup> Btu, each (3-hr avg)	5, 5B or 17	SC Regulation 61-62.5, Std. No. 7	No
01, 02	B01, B02	Boiler No. 1, Boiler No. 2	PM (total)	0.018 lb/10 <sup>6</sup> Btu, each (3-hr avg)	5, 5B or 17 and 202	SC Regulation 61-62.5, Std. No. 7	No
01, 02	B01, B02	Boiler No. 1, Boiler No. 2	PM <sub>10</sub> (filterable)	0.012 lb/10 <sup>6</sup> Btu, each (3-hr avg)	201	SC Regulation 61-62.5, Std. No. 7	No
01, 02	B01, B02	Boiler No. 1, Boiler No. 2	PM <sub>10</sub> (total)	0.018 lb/10 <sup>6</sup> Btu, each (3-hr avg)	201, 202	SC Regulation 61-62.5, Std. No. 7	No
01, 02	B01, B02	Boiler No. 1, Boiler No. 2	Filterable PM	2.09 tons/day, each; 2.72 tons/day, combined (24-hr block sums)	5, 5B or 17	SC Reg 61-62.1, Section II(J)(2)	No
01, 02	B01, B02	Boiler No. 1, Boiler No. 2	Total PM	2.51 tons/day, each; 3.28 tons/day, combined (24-hr block sums)	5, 5B or 17 and 202	SC Reg 61-62.1, Section II(J)(2)	No
01, 02	B01, B02	Boiler No. 1, Boiler No. 2	PM <sub>10</sub> (filterable)	1.67 tons/day, each; 2.18 tons/day, total (24-hr block sums)	201	SC Reg 61-62.1, Section II(J)(2)	No

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Unit ID	Equip ID	Desc.	Pollutant/ Standard	Limit	Reference Method	Regulation	State Only
01, 02	B01, B02	Boiler No. 1, Boiler No. 2	PM <sub>10</sub> (total)	2.51 tons/day, each; 3.28 tons/day, combined (24-hr block sums)	201, 202	SC Reg 61-62.1, Section II(J)(2)	No
01, 02	B01, B02	Boiler No. 1, Boiler No. 2	$\mathrm{SO}_2$	3.5 lb/10 <sup>6</sup> Btu, each (24-hr block avg)	6 or 6C	SC Regulation 61-62.5, Std. No. 1	No
01, 02	B01, B02	Boiler No. 1, Boiler No. 2	$\mathrm{SO}_2$	1.4 lb/MWh gross energy output, or 95% reduction, each (30-day rolling avg.)	6 or 6C	40 CFR 60, Subpart Da	No
01, 02	B01, B02	Boiler No. 1, Boiler No. 2	$\mathrm{SO}_2$	0.12 lb/10 <sup>6</sup> Btu, each (30-day rolling avg)	CEMS	SC Regulation 61-62.5, Std. No. 7	No
01, 02	B01, B02	Boiler No. 1, Boiler No. 2	$SO_2$	16.74 tons/day, each; 21.84 tons/day, combined (24-hr block sums)	CEMS	SC Reg 61-62.1, Section II(J)(2)	No
01, 02	B01, B02	Boiler No. 1, Boiler No. 2	NO <sub>X</sub>	1.0 lb/MWh or 0.6 lb/10 <sup>6</sup> Btu and 65% reduction, each (30- day rolling avg.)	7 or 7E	40 CFR 60, Subpart Da	No
01, 02	B01, B02	Boiler No. 1, Boiler No. 2	NOx	0.07 lb/10 <sup>6</sup> Btu, each (30-day rolling avg)	7 or 7E	SC Regulation 61-62.5, Std. No. 7	No
01, 02	B01, B02	Boiler No. 1, Boiler No. 2	NOx	9.77 tons/day, each; 12.74 tons/day, combined (24-hr block sums)	CEMS	SC Reg 61-62.1, Section II(J)(2)	No
01, 02	B01, B02	Boiler No. 1, Boiler No. 2	СО	0.15 lb/10 <sup>6</sup> Btu, each	10	SC Regulation 61-62.5, Std. No. 7	No
01, 02	B01, B02	Boiler No. 1, Boiler No. 2	СО	20.93 tons/day, each; 27.30 tons/day, combined (24-hr block sums)	10	SC Reg 61-62.1, Section II(J)(2)	No
01, 02	B01, B02	Boiler No. 1, Boiler No. 2	VOC	0.0024 lb/10 <sup>6</sup> Btu, each (3-hr block avg)	18, 25 or 25A	SC Regulation 61-62.5, Std. No. 5.1	Yes
01, 02	B01, B02	Boiler No. 1, Boiler No. 2	VOC	0.0024 lb/10 <sup>6</sup> Btu, each (3-hr block avg)	18, 25 or 25A	SC Regulation 61-62.5, Std. No. 7	No
01, 02	B01, B02	Boiler No. 1, Boiler No. 2	VOC	0.34 tons/day, each; 0.44 tons/day, combined (24-hr block sums)	18, 25 or 25A	SC Reg 61-62.1, Section II(J)(2)	No

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Unit ID	Equip ID	Desc.	Pollutant/ Standard	Limit	Reference Method	Regulation	State Only
01, 02	B01, B02	Boiler No. 1, Boiler No. 2	Lead	1.91 E-05 lb/10 <sup>6</sup> Btu, each	29	SC Regulation 61-62.5, Std. No. 7	No
01, 02	B01, B02	Boiler No. 1, Boiler No. 2	Lead	0.0028 tons/day, each; 0.0036 tons/day, combined (24-hr block sums)	29	SC Reg 61-62.1, Section II(J)(2)	No
01, 02	B01, B02	Boiler No. 1, Boiler No. 2	H <sub>2</sub> SO <sub>4</sub>	0.005 lb/10 <sup>6</sup> Btu, each	8	SC Regulation 61-62.5, Std. No. 7	No
01, 02	B01, B02	Boiler No. 1, Boiler No. 2	H <sub>2</sub> SO <sub>4</sub>	0.69 tons/day, each; 0.90 tons/day, combined (24-hr block sums)	8	SC Reg 61-62.1, Section II(J)(2)	No
01, 02	B01, B02	Boiler No. 1, Boiler No. 2	Fluorides	3.41 E-04 lb/10 <sup>6</sup> Btu, each	13	SC Regulation 61-62.5, Std. No. 7	No
01, 02	B01, B02	Boiler No. 1, Boiler No. 2	Fluorides	0.048 tons/day, each; 0.062 tons/day, combined (24-hr block sums)	13	SC Reg 61-62.1, Section II(J)(2)	No
01, 02	B01, B02	Boiler No. 1, Boiler No. 2	Mercury	20 x 10 <sup>-6</sup> lb/MWh, each (12-month rolling avg.)	29, CEMS	40 CFR 60, Subpart Da	No
01, 02	B01, B02	Boiler No. 1, Boiler No. 2	Mercury	69 lb/year (12-month rolling sum), each	29, CEMS	SC Reg 61-62.1, Section II(J)(2)	Yes
01, 02	B01, B02	Boiler No. 1, Boiler No. 2	SO <sub>2</sub> , NO <sub>X</sub>	See Acid Rain Permit	N/A	40 CFR 72, 73, 75, and 76	No
01, 02	B01, B02	Boiler No. 1, Boiler No. 2	PM	All filterable PM/PM <sub>10</sub> limits	N/A	40 CFR 64	No
01, 02	B01, B02	Boiler No. 1, Boiler No. 2	SO <sub>2</sub> , NO <sub>X</sub>	All SO <sub>2</sub> and NO <sub>X</sub> limits	CEMS	40 CFR 64 Avoidance	No
01, 02	B01, B02	Boiler No. 1, Boiler No. 2	SO <sub>2</sub> , NO <sub>X</sub>	See Regulation	CEMS	CAIR	No
01, 02	B01, B02	Boiler No. 1, Boiler No. 2	Mercury	See Regulation	CEMS	CAMR	No

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Unit ID	Equip ID	Desc.	Pollutant/ Standard	Limit	Reference Method	Regulation	State Only
01, 02	B01, B02	Boiler No. 1, Boiler No.2	PM, PM <sub>10</sub> , SO <sub>2</sub> , NO <sub>X</sub> , CO, VOC, Pb, H <sub>2</sub> SO <sub>4</sub> , Fluorides	Comply with Startup and Shutdown Requirements	N/A	SC Regulation 61-62.5, Standard No. 7	No
03	MT10 MT11 MT12	See Att. B	Opacity	20%, each	9	40 CFR 60, Subpart Y	No
03	Each	See Att. B	Opacity	20%, each	9	SC Regulation 61-62.5, Std. No. 4	No
03	Combined	See Att. B	PM	76.23 lb/hr, combined	5	SC Regulation 61-62.5, Std. No. 4	No
03	Combined	See Att. B	PM	6.57 lb/hr, combined	5	SC Regulation 61-62.5, Std. No. 7	No
04	Each	See Att. B	Opacity	20%, each	9	SC Regulation 61-62.5, Std. No. 4	No
04	Combined	See Att. B	PM	76.23 lb/hr, combined	5	SC Regulation 61-62.5, Std. No. 4	No
04	Combined	See Att. B	PM	2.51 lb/hr, combined	5	SC Regulation 61-62.5, Std. No. 7	No
05	CR01	See Att. B	Opacity	20%	9	SC Std. 4	No
05	CR01	See Att. B	Op <mark>aci</mark> ty	20%	9	40CFR60 Subpart Y	No
05	CR01	See Att. B	P <mark>M</mark>	7 <mark>6.2</mark> 3 lb/hr	9	SC Std. 4	No
05	CR01	See Att. B	PM	0.59 lb/hr	5	SC Std. 7	No
06	Each	See Att. B	Op <mark>acit</mark> y	20%, each	9	SC Regulation 61-62.5, Std. No. 4	No
06	MT23 MT24 MT25 MT28 MT29 MT30	See Att. B	Opacity	7%, each (point sources)	9	40CFR60 Subpart OOO	No
06	MT20 MT21 MT22 MT26 MT27	See Att. B	Opacity	10%, each (fugitive sources)	9	40CFR60 Subpart OOO	No
06	Combined	See Att. B	PM	53.55 lb/hr, combined	5	SC Regulation 61-62.5, Std. No. 4	No
06	Combined	See Att. B	PM	0.84 lb/hr, combined	5	SC Regulation 61-62.5, Std. No. 7	No
06	MT23 MT24 MT25 MT28 MT29 MT30	See Att. B	PM	0.022 grains/dscf, each (point sources)	5	40CFR60 Subpart OOO	No
07	CR02	See Att. B	Opacity	20%	9	SC Regulation 61-62.5, Std. No. 4	No

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Unit ID	Equip ID	Desc.	Pollutant/ Standard	Limit	Reference Method	Regulation	State Only
07	CR02	See Att. B	Opacity	7%	9	40CFR60 Subpart OOO	No
07	CR02	See Att. B	PM	53.55 lb/hr	5	SC Regulation 61-62.5, Std. No. 4	No
07	CR02	See Att. B	PM	0.05 lb/hr	5	SC Regulation 61-62.5, Std. No. 7	No
07	CR02	See Att. B	PM	0.022 grains/dscf	5	40CFR60 Subpart OOO	No
08	Each	See Att. B	Opacity	20%, each	9	SC Regulation 61-62.5, Std. No. 4	No
08	MT34 MT35 MT36	See Att. B	Opacity	10%, each (fugitive sources)	9	40 CFR 60, Subpart OOO	No
08	Combined	See Att. B	PM	60.50 lb/hr, combined	5	SC Regulation 61-62.5, Std. No. 4	No
08	Combined	See Att. B	PM	0.76 lb/hr, combined	5	SC Regulation 61-62.5, Std. No. 7	No
09	Each	See Att. B	Opacity	20%	9	SC Regulation 61-62.5, Std. No. 4	No
09	Combined	See Att. B	PM	63.00 lb/hr, combined	5	SC Regulation 61-62.5, Std. No. 4	No
09	Combined	See Att. B	PM	0.045 <mark>lb/h</mark> r, comb <mark>ined</mark>	5	SC Regulation 61-62.5, Std. No. 7	No
10	Each	See Att. B	Op <mark>acit</mark> y	20%, each	9	SC Regulation 61-62.5, Std. No. 4	No
11	Each	Cooling Towers	Op <mark>aci</mark> ty	20%, each	9	SC Regulation 61-62.5, Std. No. 4	No
11	Each	Cooling Towers	P <mark>M</mark>	83.8 lb/hr (each tower)	N/A	SC Regulation 61-62.5, Std. No. 4	No
11	Each	Cooling Towers	PM	0.0005% drift loss (each tower)	N/A	SC Regulation 61-62.5, Std. No. 7	No

N/A = Not Applicable

The emission limitations listed for each emission unit are based on operation at permitted capacity. Operation at less than permitted capacity must meet emission limits specified in the applicable regulations based on that operating rate. All test methods must be the most recent revisions that are published in the *Code of Federal Regulations*, in accordance with the requirements of SC Regulation 61-62.1, Section IV, Source Test.

#### B. CONTINUOUS MONITORING REQUIREMENTS

ID	Pollutant	Averaging Time
Boilers 01 and 02	Opacity	6 minute block average
Boilers 01 and 02	$\mathrm{SO}_2$	24-hour block average 30-day rolling average
Boilers 01 and 02	$NO_X$	24-hour block average 30-day rolling average
Boilers 01 and 02	Mercury	12-month rolling average 12-month rolling sum
Boilers 01 and 02	СО	30-day rolling average

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#### C. SOURCE TEST SCHEDULE

ID	Pollutant	Frequency	Method	Averaging Time
Boilers 01 and 02	Opacity	Initial and Annual (See Note 1)	9	6 minutes
Boilers 01 and 02	PM	Initial and Annual (See Note 1)	5, 5B or 17	Minimum of (3) one hour runs
Boilers 01 and 02	$PM_{10}$	Initial	201 and 202	Minimum of (3) one hour runs
Boilers 01 and 02	$SO_2$	Initial	19 and CEMS	30 days
Boilers 01 and 02	$NO_X$	Initial	19 and CEMS	30 days
Boilers 01 and 02	CO	Initial and Annual (See Note 1)	10	Minimum of (3) one hour runs
Boilers 01 and 02	VOC	Initial	18, 25 or 25A	Minimum of (3) one hour runs
Boilers 01 and 02	H <sub>2</sub> SO <sub>4</sub>	Initial	8	Minimum of (3) one hour runs
Boilers 01 and 02	Lead	Initial	29	Minimum of (3) one hour runs
Boilers 01 and 02	Fluorides	Initial	13	Minimum of (3) one hour runs
Boilers 01 and 02	Mercury	Initial	29 (initial) CEMS (annual)	Minimum of (3) one hour runs
Material Handling Sources (See Note 2)	PM PM	Initial	5 <mark>, 5B</mark> , 17	Minimum of (3) one hour runs

Note 1: PM testing frequency may be more frequent than annual depending on test results. On-going PM and CO tests may be waived with acceptable CEMS data.

Note 2: Initial source testing shall be conducted for each type baghouse used for highest emitting sources. Proposed sources to be tested shall be submitted to the Bureau for review and approval prior to testing.

#### D. ADDITIONAL CONDITIONS

Condition Number	Conditions
1	(Facility-wide) The permittee shall pay fees in accordance with SC Regulation 61-30, SC Environmental Protection Fees.
2	(Facility-wide) In accordance with SC Regulation 61-62.1 Section II(J), for all sources not required to have continuous emissions monitors, in the event of any malfunction of air pollution control equipment or system, process upset or other equipment failure which results in discharges of air contaminants lasting for one hour or more and which are greater than those discharges described for normal operation in the permit application shall be reported to the local Environmental Quality Control (EQC) Regional office within twenty-four (24) hours after the beginning of the occurrence. The permittee shall also submit a written report within thirty (30) days of the occurrence. This report shall be submitted to the Manager of the Technical Management Section, Bureau of Air Quality (BAQ). The report shall contain as a minimum, the following: the identity of the emission unit and associated equipment where excess emissions occurred, the magnitude of excess emissions, the time and duration of excess emissions, the steps taken to remedy the malfunction and to prevent a recurrence, documentation that control equipment and processes were at all times maintained and operated, to the maximum extent practicable, in a manner that was consistent with good practice for minimizing emissions. Such a report shall in no way serve to excuse, otherwise justify, or in any manner affect any potential liability or enforcement action resulting from the occurrence.

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Condition Number	Conditions
3	(Facility-wide) Air dispersion modeling (or other method) has demonstrated that this facility's operation will not interfere with the attainment and maintenance of any state or federal ambient air standard. Any changes in the parameters used in the air dispersion modeling may require a review by the facility to determine continuing compliance with these standards. These potential changes include any decrease in stack height, decrease in stack velocity, increase in stack diameter, decrease in stack exit temperature, increase in building height or building additions, increase in emission rates, decrease in distance between stack and property line, changes in vertical stack orientation, and installation of a rain cap that impedes vertical flow. Parameters that are not required in the determination will not invalidate the demonstration if they are modified. The emission rates used in the determination are listed in Attachment A of this permit. Higher emission rates may be administratively incorporated into Attachment A of this permit provided a demonstration using these higher emission rates shows the attainment and maintenance of any state or federal ambient air quality standard or with any other applicable requirement. Variations from the input parameters in the demonstration shall not constitute a violation unless the maximum allowable ambient concentrations identified in the standard are exceeded.
	The owner/operator shall maintain this facility at or below the emission rates as listed in Attachment A, not to exceed the pollutant limitations of this construction permit. Should the facility wish to increase the emission rates listed in Attachment A, not to exceed the pollutant limitations in the body of this permit, it may do so by the administrative process specified in this permit condition. This is a State Only enforceable requirement.
4	(Facility-wide) These conditions shall not supersede any State or Federal requirements such as National Emission Standards for Hazardous Air Pollutants, unless these conditions would impose a more restrictive limit.
5	(Facility-wide) This construction permit was reviewed and issued based on the permit application submitted by the owner/operator. The owner/operator shall obtain any Bureau authorization required under South Carolina Regulation 61-62.1, Section II(A) prior to making modifications not covered under this construction permit.
6	For sources not yet covered by an effective Title V operating permit, the owner or operator shall submit a written request to the Director of the Engineering Services Division for a new operating permit to cover any new, or altered source, postmarked no later than fifteen (15) days after the actual date of initial startup of each new or altered source. In accordance with SC Regulation 61-62.70.5(a), the owner or operator shall submit a timely and complete Part 70 permit application within 12 months of start up.
7	The owner/operator or professional engineer in charge of the project shall certify that, to the best of his/her knowledge and belief and as a result of periodic observation during construction, the construction under application has been completed in accordance with the specifications agreed upon in the construction permit issued by the Department. If construction is certified as provided above, the permittee may operate the source in compliance with the terms and conditions of the construction permit until the operating permit is issued by the Department. If construction is not built as specified in the permit application and associated construction permit(s), the owner/operator must submit to the Director of the Engineering Services Division a complete description of modifications that are at variance with the documentation of the construction permitting determination prior to commencing operation. Construction variances that would trigger additional requirements that have not been addressed prior to start of operation shall be considered construction without a permit.
8	This facility is a "major source" as defined by SC DHEC Regulation 61-62.70.2(r) (Title V), based on potential emissions of $PM_{10}$ , $SO_2$ , $NO_X$ , $CO$ , and $VOC$ . This facility is required to submit a Title V application within 12 months from the date of start-up.

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Condition Number		Conditions					
9	(Facility-wide) Unless elsewhere specified within this permit, all records required to demonstrate compliance with the limits established under this permit shall be maintained on site for a period of at least five (5) years from the date generated and shall be made available to a Department representative upon request.						
10	(Facility-wide) Unless elsewhere specified within this permit, all reports required under this permit including all recorded parameters and calculated values shall be submitted to the Manager of the Technical Management Section, Bureau of Air Quality, at the address listed below, postmarked no later than thirty (30) calendar days after the end of the reporting period.  SC DHEC - BAQ  Technical Management Section 2600 Bull Street Columbia, SC 29201						
11	No. 7, "Prevent and fluorides.	ion of Sig <mark>nific</mark> ant Deterio	e subject to al <mark>l provisions of SC Regulation 61-62.5, Standard ration" for PM, PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>X</sub>, CO, VOC, lead, sulfuric acid,</mark>				
	determined to b	e the following:	le Control Technology (BACT) for Boilers No. 1 and No. 2 was				
	Pollutant	BACT	Limit				
	PM	Use of electrostatic precipitator	0.018 lb/million Btu, each (total PM, 3-hr avg) 0.015 lb/million Btu, each (filterable PM, 3-hr avg)				
	PM <sub>10</sub>	Use of electrostatic precipitator	0.018 lb/million Btu, each (total PM <sub>10</sub> , 3-hr avg) 0.012 lb/million Btu, each (filterable PM <sub>10</sub> , 3-hr avg)				
	$SO_2$	Use of FGD	0.12 lb/million Btu, each (30-day avg)				
	$NO_X$	Use of SCR	0.07 lb/million Btu, each (30-day avg)				
	СО	Good combustion practices	0.15 lb/million Btu, each (30-day avg)				
	VOC	Good combustion practices	0.0024 lb/million Btu, each (3-hr avg)				
	Lead	Use of electrostatic precipitator	0.0000191 lb/million Btu, each (3-hr avg)				
12	Fluorides	Use of FGD	3.41 x 10 <sup>-4</sup> lb/million Btu, each (3-hr avg) (95% scrubbing efficiency)				
	$H_2SO_4$	Use of FGD	0.005 lb/10 <sup>6</sup> Btu, each (3-hr avg)				
	2 fuel oil conta available) or na coal blended wi	ining 0.05% sulfur or les tural gas during startup, sl	f ultra low sulfur fuel oil containing 0.0015% sulfur or less (No. s may be used if ultra low sulfur fuel oil is not commercially hutdown, and flame stabilization and use of eastern bituminous and normal operation. During startup and shutdown, each boiler				
	Pollutant	BACT	Limit				
	PM	Use of electrostatic precipitator as established by startup and shutdown plan	C * 102.6 lb/hr, each (total PM) C * 85.5 lb/hr, each (filterable PM)				
	PM <sub>10</sub>	Use of electrostatic precipitator as established by startup	C * 102.6 lb/hr, each (total PM <sub>10</sub> ) C * 68.4 lb/hr, each (filterable PM <sub>10</sub> )				

and shutdown plan

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Condition Number	Conditions						
		Use of FGD as					
	$SO_2$	established by startup	C * 684 lb/hr, each				
		and shutdown plan					
	$NO_X$	Follow startup and	C * 399 lb/hr, each				
		shutdown plan Good combustion					
	CO	practices	C * 855 lb/hr, each				
	VOC	Good combustion	C * 13.68 lb/hr, each				
		practices Use of electrostatic	,				
		precipitator as					
	Lead	established by startup	C * 0.11 lb/hr, each				
		and shutdown plan					
		Use of FGD as					
	Fluorides	established by startup	C * 1.94 lb/hr, each				
		and shutdown plan					
		Use of FGD as					
	$H_2SO_4$	established by startup	C * 28.5 lb/hr, each				
	**************************************	and shutdown plan	individual startup or shutdown periods				
	where	C = duration in flours of	individual startup of shutdown periods				
	The pollution of	control systems shall be br	ought into service during startup, consistent with the technical				
			is, and good engineering and maintenance practices. The ESP				
			ntial control upon introduction of coal into the boilers, and				
	optimum performance upon the unit reaching steady load conditions. The SCR system shall be bro						
			num load levels that correspond to specific flue gas temperatures				
			as specified by the manufacturer. The startup period shall end				
			ice. No specific operating procedures will apply during periods ected to fluctuate significantly and will essentially cease upon				
		fuel in the boilers.	ceted to fractuate significantly and will essentially cease upon				
			perator shall establish a startup/shutdown/malfunction plan				
			the expected duration of normal startups and shutdowns, the				
	expected intervals of time (or load) for which control devices are not expected to be on line (per						
	manufacturer or other requirements), and operational conditions that are expected to be followed that						
	minimize emissions. Also, included in this plan the owner/operator shall establish how operation of the boilers at low utilization will be minimized. This plan shall be submitted for approval to the Bureau's						
	Engineering Services Division prior to operation of either Boiler No. 1 or No. 2. This plan shall be						
	reviewed and updated on a minimum of an annual frequency and any changes shall be submitted to the						
	Engineering Services Division within 30 days of the operating permit effective date anniversary. If there						
		are no changes, the report shall indicate such. Failure of the facility to comply with the plan will					
13	represent a vio	lation.					
	Mass emissions of pollutants as described in Condition 12 occurring during the startup/shutdown periods shall not exceed the specified limits.						
	The facility shall record emissions during startups, shutdowns, and malfunctions and shall report quarterly any instances for which actual emissions exceed the above specified rates, any instances for which any startup or shutdown exceeds the expected time (or load) parameters, and any instances where control devices are not operational as expected during startup and shutdown. This report shall also include explanations where such instances occur. If no instances occur during the reporting quarter, then the report shall indicate such.						

### Santee Cooper (Pee Dee Generating Station) CONSTRUCTION PERMIT NUMBER: 1040-0113-CA DATE OF ISSUE: DRAFT Page 12 of 23

Condition Number	Conditions
14	(Boilers B01 and B02) Source tests for opacity, PM, PM $_{10}$ , SO $_{2}$ , NO $_{3}$ , CO, VOC, H $_{2}$ SO $_{4}$ , lead, mercury, and HF emissions from Boilers No. 1 and No. 2 will be required prior to the issuance of a permit to operate. The tests shall be performed within 60 days after achieving maximum production but not later than 180 days after initial start-up. The Bureau must be notified at least two weeks prior to a source test so that a Bureau representative may be present. Source test methodology, to include testing at worst-case conditions, must be approved by the Bureau and comply with SC DHEC Regulation 61-62.1, Section IV - Source Testing.
15	(Material Handling Systems) Source tests for PM from representative sources will be required prior to the issuance of a permit to operate. The representative sources shall consist of testing each type of baghouse for the highest emitting source of that type. The representative sources would likely include, but not be limited to, the baghouse for one coal bunker (six silos), baghouse for the coal crusher, and another representative baghouse. The proposed list of sources to be tested shall be submitted to the Bureau for approval as part of the test protocol. The tests shall be performed within 60 days after achieving maximum production but not later than 180 days after initial start-up. The Bureau must be notified at least two weeks prior to a source test so that a Bureau representative may be present. Source test methodology, to include testing at worst-case conditions, must be approved by the Bureau and comply with SC DHEC Regulation 61-62.1, Section IV - Source Testing.
16	(Boilers B01 and B02) Notification of intent to source test, performance of source tests, and the reporting of source test results shall comply with 40 CFR 60.8, New Source Performance Standards (NSPS), and with South Carolina Regulation 61-62.1, Section IV, Source Tests.
17	(Boilers B01 and B02) This source is permitted to operate two supercritical pulverized coal-fired boilers, each rated at a heat input rate of 5,700 million Btu/hr. These units are permitted to burn eastern bituminous coal, or eastern bituminous coal with petcoke blended up to 30% by composite weight (i.e., 30% petcoke and 70% coal) as fuel. Ultra low sulfur fuel oil (or fuel oil No. 2 containing 0.05% or less sulfur if ultra low sulfur fuel oil is not commercially available) and natural gas may be used for initial firing of each boiler during startup in addition to periods requiring flame stabilization. The use of any other substances as fuel is prohibited without prior written approval from the Bureau of Air Quality. During operation of these units, all control devices (including ESPs, FGD Scrubbers, Low NO <sub>x</sub> Burners, and SCR controls) shall be operated consistent with the technological limitations, manufacturer's specifications, and good engineering and maintenance practices for the control devices.
18	(Boilers B01 and B02) The owner/operator shall maintain on file all measurements including continuous monitoring system or monitoring device performance measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required in a permanent form.
19	(Boilers B01 and B02) The owner/operator shall install, operate, and maintain continuous opacity monitoring system (COMS) for monitoring and reporting of opacity and continuous emissions monitor systems (CEMS) for monitoring and reporting of emissions of $NO_X$ , $SO_2$ , $CO$ , and mercury.
20	(Boilers B01 and B02) These units are subject to all applicable requirements of 40CFR60 Subparts A and Da, New Source Performance Standards for Electric Utility Steam Generating Plants, as revised June 9, 2006.

### Santee Cooper (Pee Dee Generating Station) CONSTRUCTION PERMIT NUMBER: 1040-0113-CA DATE OF ISSUE: DRAFT Page 13 of 23

Condition Number	Conditions
	(Boilers B01 and B02) 40CFR60.42Da(c) On and after the date on which the performance test required to be conducted under 40CFR60.8 is completed, no owner or operator subject to the provisions of 40CFR60 Subpart Da shall cause to be discharged into the atmosphere from any affected facility any gases that contain particulate matter in excess of either:  (a) 0.14 lb/MWh gross energy output; or  (b) 0.015 lb/MMBtu heat input derived from the combustion of solid, liquid, or gaseous fuel.
21	As an alternative to meeting the requirements above, the owner or operator may elect to meet the requirements as follows. On and after the date on which the performance test required to be conducted under 40CFR60.8 is completed, the owner or operator subject to the provisions of 40CFR60 Subpart Da shall not cause to be discharged into the atmosphere from any affected facility any gases that contain particulate matter in excess of:  (a) 0.03 lb/MMBtu) heat input, and (b) 99.9 percent reduction.
22	(Boiler B01 and BoilerB02) 40CFR60.43Da(i) On and after the date on which the performance test required to be conducted under 40CFR60.8 is completed, no owner or operator subject to the provisions of 40CFR60 Subpart Da shall cause to be discharged into the atmosphere from any affected facility any gases that contain sulfur dioxide in excess of either:  (a) 1.4 lb/MWh gross energy output on a 30-day rolling average basis, or  (b) 5 percent of the potential combustion concentration (95 percent reduction) on a 30-day rolling average basis.
23	(Boilers B01 and B02) 40CFR60.44Da(e) On and after the date on which the performance test required to be conducted under 40CFR60.8 is completed, no owner or operator subject to the provisions of 40CFR60 Subpart Da shall cause to be discharged into the atmosphere from any affected facility, any gases that contain nitrogen oxides (expressed as NO <sub>2</sub> ) in excess of 1.0 lb/MWh gross energy output on a 30-day rolling average basis.
24	(Boilers B01 and B02) 40CFR60.44Da(e) On and after the date on which the performance test required to be conducted under 40CFR60.8 is completed, no owner or operator subject to the provisions of 40CFR60 Subpart Da that burns only bituminous coal, shall cause to be discharged into the atmosphere from any new affected source, any gases that contain mercury in excess of 20.0 x 10 <sup>-6</sup> lb/MWh (0.02 lb/gigawatt-hr) on an output basis averaged on a 12-month rolling average basis.
	(Boilers B01 and B02) SC Regulation 61-62.1, Section II(J)(2) Emissions of mercury from each boiler shall not exceed 69 lb/year for each boiler. This emission rate shall be demonstrated based on CEMS monitoring on a 12-month rolling sum basis and shall follow 40 CFR 60 monitoring and reporting requirements. This limit is a state-only requirement.
25	(Boilers B01 and B02) In accordance with SC Regulation 61-62.5, Standard No. 1, Emissions from Fuel Burning Operations and 40CFR60.42Da(b), Standards Of Performance For Electric Utility Steam Generating Units For Which Construction Is Commenced After September 18, 1978, these boilers shall not discharge into the ambient air smoke which exceeds an opacity of 20%. The twenty percent (20%) opacity limit may be exceeded for soot blowing only, where so equipped, but may not be exceeded for more than six (6) minutes in a one hour period nor be exceeded for more than a total of four 6-minute periods in a twenty-four (24) hour period, of not more than 27% opacity. This opacity standard applies at all times except during periods of startup and shutdown.
	The owner/operator shall, to the extent practicable, maintain and operate any source including associated air pollution control equipment in a manner consistent with good air pollution control practices for minimizing emissions. For the opacity standards set forth above to not apply during startup or shutdown the owner/operator shall maintain a log of the time, magnitude, duration and any other pertinent information to determine periods of startup and shutdown.

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Condition Number	Conditions
26	(Boilers B01 and B02) 40CFR 60.49Da(a) The owner or operator of an affected facility shall install, calibrate, maintain, and operate a continuous monitoring system, and record the output of the system, for measuring the opacity of emissions discharged to the atmosphere, except where gaseous fuel is the only fuel combusted. If opacity interference due to water droplets exists in the stack (for example, from the use of an FGD system), the opacity is monitored upstream of the interference (at the inlet to the FGD system). If opacity interference is experienced at all locations (both at the inlet and outlet of the sulfur dioxide control system), alternate parameters indicative of the particulate matter control system's performance are monitored (subject to the approval of the Department and EPA).
27	(Boilers B01 and B02) 40CFR60.48Da(e) After the initial performance test required under 40CFR60.8 compliance with the sulfur dioxide emission limitations and percentage reduction requirements under 40CFR60.23a and the nitrogen oxides emission limitations under 40CFR60.22a is based on the average emission rate for 30 successive boiler operating days. A separate performance test is completed at the end of each boiler operating day after the initial performance test, and a new 30-day average emission rate for both sulfur dioxide and nitrogen oxides and a new percent reduction for sulfur dioxide are calculated to show compliance with the standards.
28	(Boilers B01 and B02) 40CFR60.48Da(f) For the initial performance test required under 40CFR60.8 compliance with the sulfur dioxide emission limitations and percent reduction requirements under 40CFR60.23a and the nitrogen oxides emission limitation under 40CFR60.22a is based on the average emission rates for sulfur dioxide, nitrogen oxides, and percent reduction for sulfur dioxide for the first 30 successive boiler operating days. The initial performance test is the only test in which at least 30 days prior notice is required unless otherwise specified by the Department. The initial performance test is to be scheduled so that the first boiler operating day of the 30 successive boiler operating days is completed within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of the facility.
29	(Boilers B01 and B02) The owner or operator shall submit to the Bureau the SO <sub>2</sub> , NO <sub>X</sub> and mercury performance test data from the initial performance tests and performance evaluations of the CEMS following the requirements of 40CFR60.49Da to include the applicable performance specification in 40 CFR 60 Appendix B.
30	(Boilers B01 and B02) 40CFR60.51Da Reports demonstrating compliance with the opacity, sulfur dioxide, nitrogen dioxide, and mercury limits in accordance with 40CFR Part 60 Subpart Da shall be submitted to the Bureau of Air Quality. These reports shall contain information specified in 40CFR60.51Da and shall be submitted quarterly (for opacity and if submitted electronically) or semi-annually (other than opacity, if submitted in written form). Reporting of opacity data meeting the requirements of this regulation shall be waived if operation and reporting of PM CEMS data is maintained.
31	(Boilers B01 and B02) 40 CFR 60.7(c) The owner or operator is required to submit excess emission reports to the Bureau of Air Quality for any calendar quarter during which there are excess emissions from a boiler. If there are no excess emissions during the calendar quarter, the owner or operator shall submit a report quarterly stating that excess emissions have not occurred during the reporting period.

### Santee Cooper (Pee Dee Generating Station) CONSTRUCTION PERMIT NUMBER: 1040-0113-CA DATE OF ISSUE: DRAFT Page 15 of 23

Condition Number	Conditions
Number 32	(Boilers B01 andB02) 40CFR60.7(e)(1)  A. Notwithstanding the frequency of reporting requirements specified in Condition 31 of this permit, an owner or operator who is required by 40CFR60 Subpart Da to submit excess emissions and monitoring systems performance reports (and summary reports) on a quarterly (or more frequent) basis may reduce the frequency of reporting for that standard to semiannual if the following conditions are met:  i. For 1 full year (e.g., 4 quarterly or 12 monthly reporting periods) the affected facility's excess emissions and monitoring systems reports submitted to comply with a standard under 40CFR60 Subpart Da continually demonstrate that the facility is in compliance with the applicable standard;  ii. The owner or operator continues to comply with all recordkeeping and monitoring requirements specified in 40CFR60 Subpart Da and the applicable standard; and  iii. The Bureau does not object to a reduced frequency of reporting for the affected facility, as provided in paragraph (B) of this condition.  B. The frequency of reporting of excess emissions and monitoring systems performance (and summary) reports may be reduced only after the owner or operator notifies the Bureau in writing of his or her intention to make such a change and the Bureau does not object to the intended change. In deciding whether to approve a reduced frequency of reporting, the Bureau may review information concerning the source's entire previous performance history during the required recordkeeping period priot to the intended change, including performance test results, monitoring data, and evaluations of an owner or operator's conformance with operation and maintenance requirements. Such information may be used by the Bureau to make a judgment about the source's potential for noncompliance in the future. If the Bureau disapproves the owner or operator's request to reduce the frequency of reporting, the Bureau will notify the owner or operator in writing within 45 days after receiving notice of the owner or operator
33	(Boilers B01 and B02) In accordance with SC Regulation 61-62.5, Standard No. 1 - Emissions from Fuel Burning Operations, Section II - Particulate Matter Emissions, the allowable discharge of particulate matter resulting from the fuel burning operations is based on the input heat rate of each unit. Whenever a unit operates below 1,300 million Btu/hr, the limit is 0.6 lb/million Btu for that unit. For input heat rates equal to or above 1,300 million Btu/hr, the limit is expressed as a function of the input heat rate per the following equation: $E = 57.84 \ P^{-0.637}$ where $E = PM$ emission limit in lb/million Btu, and $P = \text{input heat rate in million Btu/hr}.$ At maximum heat capacity of 5,700 million Btu/hr, each unit's limit is 0.234 lb/million Btu input.
34	(Boilers B01 and B02) In accordance with SC Regulation 61-62.5, Standard No. 1 - Emissions from Fuel Burning Operations, Section III - Sulfur Dioxide Emissions, the maximum allowable discharge of sulfur dioxide (SO <sub>2</sub> ) resulting from the fuel burning operations is 3.5 pounds per million Btu input.

### Santee Cooper (Pee Dee Generating Station) CONSTRUCTION PERMIT NUMBER: 1040-0113-CA DATE OF ISSUE: DRAFT Page 16 of 23

Condition Number	Conditions				
	(Boilers B01 and B02) These boilers are limited to the following emission rates as allowed by SC Regulation 61-62.1, Section II(J)(2). Each emission limit shall be demonstrated based on a 24-hr block total period. Compliance with these emission limits will demonstrate that the facility is adhering to the premises of the permit application related to mass emissions for PSD applicable pollutants. Reports of				
		shall be submitted quarterly.	T =	Γ	
	Pollutant	B01 and B02 Limits	Method	Monitoring	
	PM <sub>10</sub> (filterable)	1.67 tons/day, each 2.18 tons/day, combined	201	Source test and heat input rate	
	PM (filterable)	2.09 tons/day, each 2.72 tons/day, combined	5, 5B, 17, or CEMS	Source test and heat input rate or CEMS	
	PM <sub>10</sub> (total)	2.51 tons/day, each 3.28 tons/day, combined	201, 202	Source test and heat input rate	
	PM (total)	2.51 tons/day, each 3.28 tons/day, combined	5, <mark>5B, 17, 20</mark> 2, or CEMS	Source test and heat input rate or CEMS	
	$SO_2$	16.74 tons/day, each 21.84 tons/day, combined	CEMS	CEMS	
35	$NO_X$	9.77 tons/day, each 12.74 tons/day, combined	CEMS	CEMS	
	СО	20.93 tons/day, each 27.30 tons/day, combined	CEMS	CEMS	
	VOC	0.34 tons/day, each 0.44 tons/day, combined	18, 25 or 25A	Source test and heat input rate	
	Lead	0.0028 tons/day, each 0.0036 tons/day, combined	29	Source test and heat input rate	
	H <sub>2</sub> SO <sub>4</sub>	0.69 tons/day, each 0.90 tons/day, combined	8	Source test and heat input rate	
	Fluorides	0.048 tons/day, each 0.062 tons/day, combined	13	Source test and heat input rate	
	Emission rates for pollutants not relying on CEMS data shall be determined by using the most recent (or initial if the only one) source test result multiplied by the total daily heat input averaged over 24 hours. Only the pollutant having a source test result closest to the emission limit must be calculated for each day of the reporting period. The facility shall list the source test results for the other pollutants and include a single demonstration of compliance with the associated emission limit.				
36	(06 [MT23, MT24, MT25, MT28, MT29, MT30], 07 [CR01]) 40CFR60.672(a) On and after the date on which the performance test required to be conducted by §60.8 is completed, no owner or operator subject to the provisions of 40CFR60 Subpart OOO shall cause to be discharged into the atmosphere from any transfer point on belt conveyors or from any other affected facility any stack emissions which: (1) Contain particulate matter in excess of 0.05 g/dscm (0.022 gr/dscf); and (2) Exhibit greater than 7 percent opacity.				
37	(06 [MT20, MT21, MT22, MT26, MT27], 08 [MT34, MT35, MT36]) 40CFR60.672(b) On and after the sixtieth day after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under 40CFR60.11, no owner or operator subject to the provisions of 40CFR60 Subpart OOO shall cause to be discharged into the atmosphere from any transfer point on belt conveyors or from any other affected facility any fugitive emissions which exhibit greater than 10 percent opacity.				

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Condition Number	Conditions				
38	(03 [MT10, MT11, MT12], 05 [CR01]) 40CFR60.252(c) On and after the date on which the performance test required to be conducted by 40CFR60.8 is completed, an owner or operator subject to the provisions of 40CFR60 Subpart Y shall not cause to be discharged into the atmosphere from any coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal, gases which exhibit 20 percent opacity or greater.				
39	(03-10) In accordance with SC Regulation 61-62.5, Standard No. 4 - Emissions from Process Industries, Section IX - Visible Emissions (Where Not Specified Elsewhere), where construction or modification began after December 31, 1985, emissions (including fugitive emissions) shall not exhibit an opacity greater than 20%.				
	VIII - Other the followin for process emission rat allowable p	Manufacturing, particulate g equations: for process we weight rates greater than the in pounds per hour and articulate matter emission duction rating:	e matter emission <mark>s</mark> eight rates less than 30 tons per hour ( P = process we <mark>ig</mark> l	shall be limited to the range of equal to 30 tons per home $(E = 55.0P^{0.11} - 20)$ when trate in tons per hour.	ate specified by use of four $(E = 4.10P^{0.67})$ and ere $E =$ the allowable As such, each unit's
	Emission Unit ID	Process	Emission Limit (lbs/hr)	Process Weight Rate (tons/hr)	
	03	Coal Material Transfer (combined equipment)	76.23	900	
40	04	Petcoke Material Transfer (combined equipment)	76.23	900	
	05	Coal-Petcoke Crusher	76.23	900	
	06	Limestone Material Transfer (combined equipment)	53.55	125	
	07	Limestone Crusher	53.55	125	
	08	Gypsum Material Transfer (combined equipment)	60.50	240	
	09	Fly Ash Material Transfer (combined equipment)	63.00	300	
41	(Boilers B01 and B02) These units are subject to SC Regulation 61-62.5, Standard No. 5.1, Best Available Control Technology (BACT)/Lowest Achievable Emission Rate (LAER) Applicable to Volatile Organic Compounds based on "Net VOC Emissions Increase" exceeding 100 tpy. BACT for these sources is determined to be Good Combustion Practices and a limit of 0.0024 lb/million Btu. Good Combustion Practices shall include operating the boilers to minimize VOC emissions by maintaining proper boiler temperature and available excess oxygen for complete combustion.				
42		1) These Material Trans 61-62.5, Standard No. 7, "I			

### Santee Cooper (Pee Dee Generating Station) CONSTRUCTION PERMIT NUMBER: 1040-0113-CA DATE OF ISSUE: DRAFT Page 18 of 23

Condition Number	Conditions				
	(ID03-11) The Best Available Control Technology (BACT) for the Material Transfer and Process Systems for PM emissions was determined to be the following:				
	Emission Unit ID	Equipment	BACT	z: Limit	
	03	Coal Material Transfer	Use of baghouses, Control of fugitive emissions	6.57 lb/hr, total; 99% control for sources with baghouses	
	04	Petcoke Material Transfer	Use of baghouses, Control of fugitive emissions	2.51 lb/hr, total; 99% control for sources with baghouses	
	05	Coal – Petcoke Crusher	Use of baghouses, Control of fugitive emissions	0.59 lb/hr, total; 99% control for sources with baghouses	
43	06	Limestone Material Transfer	Use of baghouses, Control of fugitive emissions	0.84 lb/hr, total; 99% control for sources with baghouses	
43	07	Limestone Crusher	Use of baghouses, Control of fugitive emissions	0.05 lb/hr, total; 99% control for sources with baghouses	
	08	Gypsum Material Transfer	Control of fugitive emissions	1.30 lb/hr, total	
	09	Fly Ash Material Transfer	Use of baghouses, Control of fugitive emissions	0.045 lb/hr, total; 99% control for sources with baghouses	
	11	Cooling Tower (each)	Use of high efficiency drift eliminators (0.0005% drift loss)	4.66 lb/hr	
	Control of fugitive emissions may include, but not be limited to, enclosure of transfer points to the extent practical, use of wet suppression if appropriate, proper maintenance of equipment, minimizing or avoiding if possible transfer of material during windy conditions.				
44	(03 [MT03, MT08, MT09, SP03], 04 [SP04, MT14], 06 [MT20, MT21, MT26, MT27, SP01]08 [MT34, MT35, MT36, SP02, SP05], 09 [MT31, MT32]) The permittee shall perform a visual inspection on uncontrolled sources on a semi-annual basis. Visual Inspection means a qualitative observation of opacity during daylight hours where the inspector records results in a log, noting color, duration, density (heavy or light), cause and corrective action taken for any abnormal emissions. The observer does not need to be certified to conduct valid visual inspections. However, at a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, and observer position relative to lighting, wind, and the presence of uncombined water. Logs shall be kept to record all visual inspections, including cause and corrective action taken for any abnormal emissions and visual inspections from date of recording. The owner/operator shall submit semiannual reports.				

### Santee Cooper (Pee Dee Generating Station) CONSTRUCTION PERMIT NUMBER: 1040-0113-CA DATE OF ISSUE: DRAFT Page 19 of 23

Condition Number	Conditions
45	<ul> <li>(T04-09 - Ammonia Storage Tanks) It has been determined that these tanks will be subject to SC Regulation 61-62.68, Chemical Accident Prevention Provisions, due to in-process storage or use of a regulated substance in quantities above the specified threshold; therefore, the following must be completed: <ol> <li>Submittal of a Risk Management Plan (RMP) to the Environmental Protection Agency (EPA) prior to the date the regulated substance is first present above the threshold quantity in a process.</li> <li>Compliance with the Risk Management Program prior to the date the regulated substance is first present above the threshold quantity in a process.</li> <li>Submittal of subsequent revisions/updates of the RMP in accordance with SC Regulation 61-62.68.190.</li> </ol> </li> <li>If it is determined by the implementing agency (or other delegated authority) that additional relevant information is needed, this facility will be required to submit the information in a timely manner.</li> </ul>
46	(Boilers B01 and B02) These sources are subject to SC Regulation 61-62.96 "Nitrogen Oxides (NO <sub>X</sub> ) Budget Trading Program," CAIR, CAMR, and the Acid Rain Program and shall comply with all applicable provisions.

### Santee Cooper (Pee Dee Generating Station) CONSTRUCTION PERMIT NUMBER: 1040-0113-CA DATE OF ISSUE: DRAFT

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Condition Number	Conditions
	(Boilers B01 and B02) The owners and operators, and to the extent applicable, the NO <sub>X</sub> authorized account representative of a NO <sub>X</sub> Budget unit, shall comply with the monitoring and reporting requirements as provided in Subpart H of SC Regulation 61-62.96 and in Subpart H of 40 CFR 75. For purposes of complying with such requirements, the definitions in SC Regulation 61-62.96.2 and in 40 CFR part 72 section 72.2 shall apply, and the terms "affected unit," "designated representative," and "continuous emission monitoring system" (or "CEMS") in 40 CFR 75 shall be replaced by the terms "NO <sub>X</sub> Budget unit," "NO <sub>X</sub> authorized account representative," and "continuous emission monitoring system" (or "CEMS"), respectively, as defined in SC Regulation 61-62.96.2.
47	
	submission under the $NO_X$ Budget Trading Program or to demonstrate compliance with the requirements of the $NO_X$ Budget Trading Program.

### Santee Cooper (Pee Dee Generating Station) CONSTRUCTION PERMIT NUMBER: 1040-0113-CA DATE OF ISSUE: DRAFT Page 21 of 23

Condition Number	Conditions
48	(Boilers B01 and B02) These units are subject to limits, monitoring, record keeping, and reporting as specified in the Clean Air Interstate Rule (CAIR) and any related State Implementation Plan rules. Implementation of $NO_X$ reductions are required by January 1, 2009, and for $SO_2$ reductions by January 1, 2010. The facility shall submit a CAIR $NO_X$ permit application, a CAIR $NO_X$ Ozone Season permit application, and a CAIR $SO_2$ permit application by the dates specified in the regulations for new units. A CAIR permit shall be issued to include each CAIR $NO_X$ unit, each CAIR $NO_X$ Ozone Season unit, and each CAIR $SO_2$ unit, and incorporated into this Title V permit.
	The owners and operators, and to the extent applicable, the CAIR designated representative, of each CAIR unit shall comply with the monitoring, record keeping, and reporting requirements of the CAIR regulations. Each CAIR $NO_X$ unit and each CAIR $NO_X$ Ozone Season unit shall also comply with 40 CFR 75, Subpart H, and each CAIR $SO_2$ unit shall also comply with 40 CFR 75, Subparts F and G. Compliance with monitoring system certification requirements for CAIR $NO_X$ units, CAIR $NO_X$ Ozone Season units, and $SO_2$ CAIR units shall be demonstrated by the dates specified in the regulations for new units.
	The CAIR designated representative shall submit quarterly reports to EPA in electronic format no later than 30 days following the end of each reporting quarter. Data shall include NO <sub>x</sub> mass emission data, SO <sub>2</sub> mass emission data, and heat input data for each CAIR unit. CAIR NO <sub>x</sub> unit, CAIR NO <sub>x</sub> Ozone Season unit, and CAIR SO <sub>2</sub> unit initial reporting shall cover the periods as specified in the regulations for new units.
49	(Boilers B01 and B02) These units are subject to limits, monitoring, record keeping, and reporting as specified in the Clean Air Mercury Rule (CAMR) and any related State Implementation Plan rules. A CAMR permit shall be issued to include each CAMR unit and incorporated into this Title V permit.  The facility shall install and maintain either a CEMS or a sorbent trap for continuous measurement of mercury emissions. The owners and operators, and to the extent applicable, the CAMR designated representative, of each CAMR unit shall comply with the monitoring, record keeping, and reporting requirements of the CAMR regulations. Each CAMR unit shall continue to comply with applicable parts of 40 CFR 72 and 40 CFR 75. Should the facility desire to use any alternative monitoring system, a petition shall be submitted to the Bureau for consideration of approval. Implementation of emissions monitoring and reporting is required by the dates specified in the regulation for new units. Compliance with budget allowances is required by the date specified in the regulation for new units. The facility shall submit a CAMR Hg permit application by the date specified in the regulation for new units.  The CAMR designated representative shall submit quarterly reports to EPA in electronic format no later than 30 days following the end of each reporting quarter. Data shall include hourly and cumulative Hg mass emission data, hourly and cumulative heat input (if applicable), and results of required QA tests. CAMR unit initial reporting shall cover the period as specified in the regulation for new units. The CAMR designated representative shall submit compliance reports semi-annually.
	Should there be changes to this regulation prior to the applicability dates that change or add to the above requirements, the facility shall request a modification to this permit to incorporate such changes.

### Santee Cooper (Pee Dee Generating Station) CONSTRUCTION PERMIT NUMBER: 1040-0113-CA DATE OF ISSUE: DRAFT Page 22 of 23

Condition Number	Conditions
	(Boilers B01 and B02) These sources are subject to 40 CFR 64, Compliance Assurance Monitoring and shall comply with all applicable provisions.
	To meet the requirements of 40 CFR 64 for Emission Units No. 01 and 02 (Boilers 01 and 02), the indicator for PM will be opacity. The owner/operator shall install, continue to operate, and maintain a COMS in the exhaust gas stack location as the measurement approach. COMS shall be used to provide assurance of compliance with applicable requirement that has subjected the facility to CAM.
50	The operational ranges for the opacity, with supporting documentation and quality assurance procedures, shall be submitted to the Bureau for approval within 180 days of the startup date of these new sources. At that time an excursion for monitoring parameters shall also be defined. These operational ranges for the monitored parameters shall be derived from data which demonstrates a reasonable assurance of compliance. Process and capture system operational parameters shall be monitored during the stack tests and operational ranges or inspection and maintenance activities shall be developed for these parameters to reflect proper operation and maintenance of the control device and capture system. Testing must be conducted in accordance with SC Regulation 61-62.1, Section IV, Source Tests. The owner or operator shall coordinate with the Source Evaluation Section of this Bureau, and the test must be performed according to a protocol approved by this Department. The Bureau shall be notified not less than two (2) weeks before the initiation of the test and the final test report must be submitted no later than 30 days after completion of on-site testing.
	The operational range, exceedance and excursion information shall be incorporated into the facility's Part 70 (Title V) Operating Permit once all appropriate testing has been completed and the test results have been approved by the Bureau. Such incorporation will represent a minor modification to the permit. The facility shall provide all relevant information for this modification, including a listing of the exact changes needed to the existing Title V permit as required by Part 70 regulations. The facility shall update their CAM plan with this information as appropriate.
51	(Boilers B01 and B02) These sources shall be exempted from 40 CFR 64, Compliance Assurance Monitoring, for SO <sub>2</sub> and NO <sub>X</sub> if the facility requests the CEMS for these pollutants be designated as continuous compliance demonstration monitoring (CCDM). If CCDM status is not requested or granted, the facility shall submit CAM plans for these pollutants within 180 days of startup of these new sources.
	The emergency generators and fire pump (D01, D02, and F01) have been determined to be exempt from construction permitting requirements in accordance with South Carolina Regulation 61-62.1 Section II.F.2.e and as such are listed as exempt sources in this permit. The emergency generators shall still comply with the requirements of all applicable regulations including but not limited to the following items (1) and (2). The fire pump shall still comply with the requirements of all applicable regulations including but not limited to the following item (1):
52	(1) New Source Performance Standards (NSPS) 40 CFR 60 Subparts A (General Provisions) and IIII (Stationary Compression Ignition Internal Combustion Engines)
	(2) National Emission Standards For Hazardous Air Pollutants (NESHAP) 40 CFR 63 Subparts A (General Provisions) and ZZZZ (Stationary Reciprocating Internal Combustion Engines)
	Based on the fire pump being less than 500 HP, it is not an affected source for 40 CFR 63 Subpart ZZZZ.
53	(D01 and D02) These generators have been defined as emergency generators, in accordance with 40 CFR 63 Subpart ZZZZ. Therefore, they do not have to meet the requirements of the subpart or of Subpart A of 40 CFR 63 except for the initial notification requirements of 40 CFR 63.6645(d).

### Santee Cooper (Pee Dee Generating Station) CONSTRUCTION PERMIT NUMBER: 1040-0113-CA DATE OF ISSUE: DRAFT Page 23 of 23

Condition Number	Conditions
54	(Boilers B01 and B02) The owner/operator shall install equipment associated with these boilers in a manner that should future specific controls for mercury be required, the installed equipment will accommodate the anticipated space necessary for the future mercury controls.
55	The cooling towers shall meet the PM BACT requirement to operate with a drift loss of 0.0005%. Compliance with this requirement may be demonstrated through on-site documentation of the vendor performance guarantee.
56	To demonstrate adherence to efficient combustion and emission control practices, the facility shall install and operate carbon monoxide (CO) CEMS on each boiler system. These CEMS shall be operated according to established and approved QA/QC practices and data shall be summarized to provide 30-day rolling averages. These averages shall be maintained on site and submitted to the Bureau on a quarterly basis with any averages that exceed the BACT emission limits noted and explained.
57	If construction does not commence on the PSD affected source within 18 months after the effective date of a permit pursuant to the PSD regulations, or if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time, as determined by the Bureau, the owner/operator may be required to re-evaluate its BACT analysis.
58	This facility is located in or adjacent to an area that may be designated as non-attainment for the National Ambient Air Quality Standard for ozone. This permit contains emissions limits for NO <sub>x</sub> and/or VOC based on the current attainment status of the area and consistent with other State and Federal requirements. Should the area be designated non-attainment for ozone before start of operation, the Department may reopen this permit, and the current emissions limits may be revised to address attainment of the ozone standard. The owner or operator is advised to take appropriate steps to assure that operations and/or control devices permitted herein can be readily modified, added to, or retrofitted as necessary.

#### E. EXEMPT SOURCES

Equip ID	Exempt Source Description	Basis
D01	Emergency Generator	SC Reg 61-61.1, Section II.F.2.e
D02	Emergency Generator	SC Reg 61-61.1, Section II.F.2.e
F01	Emergency Fire Pump	SC Reg 61-61.1, Section II.F.2.e
T01-T03, T10-T16, T28	(11) Oil Storage Tanks	SC Reg 61-62.1, Section II.B.2.h
T04-T09	(6) Anhydrous Ammonia Storage Tanks	SC Reg 61-62.1, Section II.B.2.h
T17-T20	(4) Sulfuric Acid Storage Tanks	SC Reg 61-62.1, Section II.B.2.h
T21-T22	(2) Sodium Hydroxide Storage Tanks	SC Reg 61-62.1, Section II.B.2.h
T-23-T26	(4) Hypochlorite Storage Tanks	SC Reg 61-62.1, Section II.B.2.h
T27	(1) Organic Acid Storage Tank	SC Reg 61-62.1, Section II.B.2.h
T29	(1) Gasoline Storage Tank	SC Reg 61-62.1, Section II.B.2.h

### Modeled Emission Rates Santee Cooper (Pee Dee Generating Station) Permit No. 1040-0113-CA Page 1 of 7

STANDARD NO. 2 - MO	DELED NA	AAQS EMIS	SSION RAT	ES (LBS/H	R)
SOURCE IDENTIFICATION	TSP	$PM_{10}$	$SO_2^2$	NO <sub>X</sub>	CO <sup>1</sup>
	POINT S	OURCES			
B01	102.38	102.38	684.00	399.00	912.00
B02	102.38	102.38	684.00	399.00	912.00
CR01	0.585	0.225	<b>1</b> /		
CR02	0.049	0.019			
CT01A	0.389	0.389			
CT01B	0.389	0.389			
CT01C	0.389	0.389			
CT01D	0.389	0.389			
CT01E	0.389	0.389			
CT01F	0.389	0.389			
CT01G	0.389	0.389	1-4		
СТ01Н	0.389	0.389			
CT01I	0.389	0.389			
CT01J	0.389	0.389			
CT01K	0.389	0.389			
CT01L	0.389	0.389			
CT02A	0.389	0.389			
CT02B	0.389	0.389			
CT02C	0.389	0.389			
CT02D	0.389	0.389			
CT02E	0.389	0.389			
CT02F	0.389	0.389			
CT02G	0.389	0.389			
СТ02Н	0.389	0.389			
CT02I	0.389	0.389			
CT02J	0.389	0.389			
CT02K	0.389	0.389			
CT02L	0.389	0.389			
MT01	0.017	0.008			
MT02	0.017	0.008			

### Modeled Emission Rates Santee Cooper (Pee Dee Generating Station) Permit No. 1040-0113-CA Page 2 of 7

NATIO 4	0.015	0.000			
MT04	0.017	0.008			
MT05	0.017	0.008			
MT10	0.017	0.008			
MT11	0.017	0.008			
MT15	0.017	0.008			
MT16	0.011	0.005			
MT17	0.011	0.005			
MT18	0.011	0.005	Uh		
MT19	0.011	0.00 <mark>5</mark>			
MT23	0.001	0.001	-		
MT24	0.001	0.001			
MT25	0.001	0.001			
MT28	0.001	0.001	-		
MT29	0.001	0.001	1		
MT30	0.001	0.001			
MT33	0.001	0.001			
S01	0.017	0.008			
S02	0.017	0.008			
S03	0.017	0.008			
S04	0.017	0.008			
S05	0.017	0.008			
S06	0.017	0.008			
S07	0.017	0.008			
S08	0.017	0.008			
S09	0.017	0.008			
S10	0.017	0.008			
S11	0.017	0.008			
S12	0.017	0.008			
POINT SOURCE TOTALS	215.104	214.519	1368	798	1891
VOLUME SOURCES					
MT03	1.738	0.817			
MT08	1.738	0.817			
MT09	1.738	0.817			

### Modeled Emission Rates Santee Cooper (Pee Dee Generating Station) Permit No. 1040-0113-CA Page 3 of 7

MT14		1.738	0.817			
MT20		0.132	0.062			
MT21		0.132	0.062			
MT22		0.132	0.062			
MT26		0.132	0.062			
MT27		0.132	0.062			
MT34		0.254	0.120	<b>C</b> -		
MT35		0.254	0.120	Uh		
MT36	1	0.254	0.120	Ja ii		
SP01		0.178	0.106	-		
SP02		0.272	0.163			
SP03		1.056	0.632			
SP04		0.758	0.455			
SP05		0.272	0.163	1-4		
VOLUME SOURCE TOTALS		10.91	5.457			
FACILITY TOTALS		226.0	220.0	1368	798	1824
1) ((0) 1.1. 1.1. 1.1. 1.1. 1.1. 1.1.			1	4 D.0.1	1 M. 1.1'	•

<sup>1)</sup> CO was modeled initially at a higher rate, but has been reduced since AB01 was removed. Modeling was not revised since the previous rate was higher.

<sup>2)</sup>  $SO_2$ -3hr concentrations are based on an emission rate double that of the other periods. B01 = 1368 lb/hr and B02 = 1368 lb/hr, for a facility total of 2736lb/hr. This was in response to an EPA comment concerning a possible 3-hr emission limit.

STANDARD NO. 2 - MODELED NAAQS EMISSION RATES (LBS/HR)					
SOURCE IDENTIFICATION HF LEAD					
B01	1.94	0.11			
B02	1.94	0.11			
Facility Totals	3.88	0.22			

STANDARD NO. 7 - MODELED PSD CLASS II INCREMENT EMISSION RATES (LBS/HR)					
Minor Source Baseline Date(s)					
STACK ID	9/28/78	9/28/78	N/A		
	$PM_{10}$	SO <sub>2</sub> (2)	$NO_X^{(1)}$		
POINT SOURCES					
B01	102.38	684.00	399.00		
B02	102.38	684.00	399.00		
CR01	0.225				
CR02	0.019				

### Modeled Emission Rates Santee Cooper (Pee Dee Generating Station) Permit No. 1040-0113-CA Page 4 of 7

CTOIA         0.389             CTOID         0.389             CTOID         0.389             CTOID         0.389             CTOIF         0.389             CTOIG         0.389             CTOIH         0.389             CTOIJ         0.389             CTOIK         0.389             CTOIL         0.389			
CTO1C         0.389             CTO1D         0.389             CTO1E         0.389             CTO1F         0.389             CTO1G         0.389             CTO1H         0.389             CTO1I         0.389             CTO1K         0.389             CTO1L         0.389             CTO2A         0.389             CTO2B         0.389             CTO2C         0.389             CTO2D         0.389             CTO2D         0.389             CTO2E         0.389             CTO2E         0.389             CTO2E         0.389             CTO2H         0.389             CTO2L         0.389             CTO2L         0.389	CT01A	0.389	
CTOID         0.389             CTOIE         0.389             CTOIF         0.389             CTOIG         0.389             CTOIH         0.389             CTOIJ         0.389             CTOIK         0.389             CTOIL         0.389	CT01B	0.389	
CT01E         0.389             CT01F         0.389             CT01G         0.389             CT01H         0.389             CT01I         0.389             CT01K         0.389             CT01L         0.389             CT02A         0.389             CT02B         0.389             CT02C         0.389             CT02D         0.389             CT02E         0.389             CT02E         0.389             CT02E         0.389             CT02G         0.389             CT02H         0.389             CT02I         0.389             CT02I         0.389             CT02I         0.389             CT02I         0.389	CT01C	0.389	
CT01F         0.389             CT01G         0.389             CT01H         0.389             CT01J         0.389             CT01K         0.389             CT01L         0.389             CT02A         0.389             CT02B         0.389             CT02C         0.389             CT02D         0.389             CT02E         0.389             CT02E         0.389             CT02E         0.389             CT02E         0.389             CT02G         0.389             CT02H         0.389             CT02I         0.389             CT02I         0.389             CT02L         0.389             CT02L         0.389	CT01D	0.389	
CT01G         0.389             CT01H         0.389             CT01J         0.389             CT01K         0.389             CT01L         0.389             CT02A         0.389             CT02B         0.389             CT02C         0.389             CT02D         0.389             CT02E         0.389             CT02E         0.389             CT02E         0.389             CT02G         0.389             CT02G         0.389             CT02H         0.389             CT02I         0.389             CT02I         0.389             CT02L         0.389             CT02L         0.389             MT01         0.008<	CT01E	0.389	
CT01H         0.389             CT01J         0.389             CT01K         0.389             CT01L         0.389             CT02A         0.389             CT02B         0.389             CT02C         0.389             CT02D         0.389             CT02E         0.389             CT02E         0.389             CT02E         0.389             CT02E         0.389             CT02E         0.389             CT02G         0.389             CT02I         0.389             CT02I         0.389             CT02I         0.389             CT02I         0.389             CT02L         0.389             MT01         0.008<	CT01F	0.389	
CTO1I         0.389             CTO1K         0.389             CTO1K         0.389             CTO1L         0.389             CT02A         0.389             CT02B         0.389             CT02C         0.389             CT02D         0.389             CT02E         0.389             CT02G         0.389             CT02G         0.389             CT02H         0.389             CT02I         0.389             CT02I         0.389             CT02I         0.389             CT02L         0.389             CT02L         0.389             CT02L         0.389             MT01         0.008             MT02         0.008 </td <td>CT01G</td> <td>0.389</td> <td></td>	CT01G	0.389	
CTOIJ         0.389             CTOIK         0.389             CTOIL         0.389             CTO2A         0.389             CTO2B         0.389             CTO2C         0.389             CTO2D         0.389             CTO2E         0.389             CTO2G         0.389             CTO2G         0.389             CTO2G         0.389             CTO2H         0.389             CTO2I         0.389             CTO2I         0.389             CTO2L         0.389             CTO2L         0.389             CTO2L         0.389             MT01         0.008             MT02         0.008             MT04         0.008 <td>СТ01Н</td> <td>0.389</td> <td></td>	СТ01Н	0.389	
CT01K       0.389           CT02A       0.389           CT02B       0.389           CT02C       0.389           CT02D       0.389           CT02E       0.389           CT02F       0.389           CT02G       0.389           CT02H       0.389           CT02I       0.389           CT02J       0.389           CT02L       0.389           CT02L       0.389           CT02L       0.389           MT01       0.008           MT02       0.008           MT04       0.008           MT10       0.008           MT10       0.008           MT11       0.008           MT15       0.008	CT01I	0.389	
CT01L       0.389           CT02B       0.389           CT02C       0.389           CT02D       0.389           CT02E       0.389           CT02F       0.389           CT02G       0.389           CT02H       0.389           CT02I       0.389           CT02J       0.389           CT02L       0.389           CT02L       0.389           CT02L       0.389           MT01       0.008           MT02       0.008           MT04       0.008           MT10       0.008           MT10       0.008           MT11       0.008           MT15       0.008           MT16       0.005 <td>СТОІЈ</td> <td>0.389</td> <td></td>	СТОІЈ	0.389	
CT02A       0.389           CT02B       0.389           CT02C       0.389           CT02D       0.389           CT02E       0.389           CT02F       0.389           CT02G       0.389           CT02H       0.389           CT02J       0.389           CT02K       0.389           CT02L       0.389           MT01       0.008           MT02       0.008           MT04       0.008           MT05       0.008           MT10       0.008           MT11       0.008           MT15       0.008           MT16       0.005	CT01K	0.389	
CT02B       0.389           CT02C       0.389           CT02D       0.389           CT02E       0.389           CT02F       0.389           CT02G       0.389           CT02H       0.389           CT02I       0.389           CT02J       0.389           CT02K       0.389           MT01       0.008           MT02       0.008           MT04       0.008           MT05       0.008           MT10       0.008           MT11       0.008           MT15       0.008           MT16       0.005	CT01L	0.389	
CT02C       0.389           CT02D       0.389           CT02E       0.389           CT02F       0.389           CT02G       0.389           CT02H       0.389           CT02I       0.389           CT02J       0.389           CT02L       0.389           MT01       0.008           MT02       0.008           MT04       0.008           MT05       0.008           MT10       0.008           MT11       0.008           MT15       0.008           MT16       0.005	CT02A	0.389	
CT02D       0.389           CT02E       0.389           CT02F       0.389           CT02G       0.389           CT02H       0.389           CT02I       0.389           CT02K       0.389           CT02L       0.389           MT01       0.008           MT02       0.008           MT04       0.008           MT05       0.008           MT10       0.008           MT11       0.008           MT15       0.008           MT16       0.005	CT02B	0.389	
CT02E       0.389           CT02F       0.389           CT02G       0.389           CT02H       0.389           CT02I       0.389           CT02K       0.389           CT02L       0.389           MT01       0.008           MT02       0.008           MT04       0.008           MT05       0.008           MT10       0.008           MT11       0.008           MT15       0.008           MT16       0.005	CT02C	0.389	
CT02F       0.389           CT02G       0.389           CT02H       0.389           CT02I       0.389           CT02J       0.389           CT02L       0.389           MT01       0.008           MT02       0.008           MT04       0.008           MT05       0.008           MT10       0.008           MT11       0.008           MT15       0.008           MT16       0.005	CT02D	0.389	
CT02G       0.389           CT02H       0.389           CT02I       0.389           CT02J       0.389           CT02K       0.389           CT02L       0.389           MT01       0.008           MT02       0.008           MT04       0.008           MT05       0.008           MT10       0.008           MT11       0.008           MT15       0.008           MT16       0.005	CT02E	0.389	
CT02H       0.389           CT02I       0.389           CT02J       0.389           CT02K       0.389           CT02L       0.389           MT01       0.008           MT02       0.008           MT04       0.008           MT05       0.008           MT10       0.008           MT11       0.008           MT15       0.008           MT16       0.005	CT02F	0.389	
CT02I       0.389           CT02J       0.389           CT02K       0.389           CT02L       0.389           MT01       0.008           MT02       0.008           MT04       0.008           MT05       0.008           MT10       0.008           MT11       0.008           MT15       0.008           MT16       0.005	CT02G	0.389	
CT02J       0.389           CT02K       0.389           CT02L       0.389           MT01       0.008           MT02       0.008           MT04       0.008           MT05       0.008           MT10       0.008           MT11       0.008           MT15       0.008           MT16       0.005	СТО2Н	0.389	
CT02K       0.389           CT02L       0.389           MT01       0.008           MT02       0.008           MT04       0.008           MT05       0.008           MT10       0.008           MT11       0.008           MT15       0.008           MT16       0.005	CT02I	0.389	
CT02L       0.389           MT01       0.008           MT02       0.008           MT04       0.008           MT05       0.008           MT10       0.008           MT11       0.008           MT15       0.008           MT16       0.005	СТ02Ј	0.389	
MT01       0.008           MT02       0.008           MT04       0.008           MT05       0.008           MT10       0.008           MT11       0.008           MT15       0.008           MT16       0.005	CT02K	0.389	
MT02       0.008           MT04       0.008           MT05       0.008           MT10       0.008           MT11       0.008           MT15       0.008           MT16       0.005	CT02L	0.389	
MT04       0.008           MT05       0.008           MT10       0.008           MT11       0.008           MT15       0.008           MT16       0.005	MT01	0.008	
MT05       0.008           MT10       0.008           MT11       0.008           MT15       0.008           MT16       0.005	MT02	0.008	
MT10     0.008         MT11     0.008         MT15     0.008         MT16     0.005	MT04	0.008	
MT11     0.008         MT15     0.008         MT16     0.005	MT05	0.008	
MT15 0.008 MT16 0.005	MT10	0.008	
MT16 0.005	MT11	0.008	
	MT15	0.008	
MT17 0.005	MT16	0.005	
	MT17	0.005	

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MT18	0.005		
MT19	0.005		
MT23	0.001		
MT24	0.001		
MT25	0.001		
MT28	0.001		
MT29	0.001		
MT30	0.001	<u> </u>	
MT33	0.001		
S01	0.008		
S02	0.008		
S03	0.008		
S04	0.008		
S05	0.008	<u> </u>	
S06	0.008		
S07	0.008		
S08	0.008		
S09	0.008		
S10	0.008		
S11	0.008		
S12	0.008		
POINT SOURCE TOTALS	214.5	1368	798
VOLUME	SOURCES		
MT03	0.817		
MT08	0.817		
MT09	0.817		
MT14	0.817		
MT20	0.062		
MT21	0.062		
MT22	0.062		
MT26	0.062		
MT27	0.062		
MT34	0.120		

### Modeled Emission Rates Santee Cooper (Pee Dee Generating Station) Permit No. 1040-0113-CA Page 6 of 7

MT35	0.120		
MT36	0.120		
SP01	0.106		
SP02	0.163		
SP03	0.632		
SP04	0.455		
SP05	0.163		
VOLUME SOURCE TOTALS	<b>5.4</b> 57	<u> </u>	
FACILITY TOTALS	220.0	1368	798

<sup>1)</sup> There is no Minor Source Baseline Date (MSBD) for NO<sub>X</sub> in Florence county at this time. This project sets the MSBD.

<sup>2)</sup> SO<sub>2</sub>-3hr concentrations are based on an emission rate double that of the other periods. B01 = 1368 lb/hr and B02 = 1368 lb/hr, for a facility total of 2736lb/hr. This was in response to an EPA comment concerning a possible 3-hr emission limit.

STACK ID DESCRIPTIVE INFORMATION					
STACK ID	SOURCE DESCRIPTION	DATE INSTALLED (MODIFIED)	STATUS		
	Emergency Generator No. 1	2007	Exempted		
	Emergency Generator No. 2	2007	Exempted		
	Fire Pump	2007	Exempted		
B01	Boiler No. 1 – 5700 MMBtu/hr Coal fired	2007			
B02	Boiler No. 2 – 5700 MMBtu/hr Coal fired	2007			
CR01	Coal – Petcoke Crusher	2007			
CR02	Limestone Crusher	2007			
CT01A-L & CT02A-L	Cooling Towers	2007			
MT01	Railcar Unloading	2007			
MT02	Conveyor Transfer to Stacker/Reclaim	2007			
MT03	Emergency Stockout drop to Pile	2007			
MT04	Transfer Tower Conveyor	2007			
MT05	Emergency Reclaim	2007			
MT08	Stacker/Reclaimer Stockout	2007			
MT09	Stacker/Reclaimer Reclaim	2007			
MT10	Conveyor to Crusher Tower	2007			
MT11	Conveyor to Transfer Tower	2007			

### Modeled Emission Rates Santee Cooper (Pee Dee Generating Station) Permit No. 1040-0113-CA Page 7 of 7

MT14	Hopper Loading	2007		
MT15	Conveyor Transfer	2007		
MT16	Fly Ash - Truck loadout 1	2007		
MT17	Fly Ash - Truck loadout 2	2007		
MT18	Fly Ash - Silo 1	2007		
MT19	Fly Ash - Silo 2	2007	1/4	
MT20	Truck Unloading To Limestone Pile	2007		
MT21	Limestone reclaim feeder	2007	Jh	
MT22	Limestone emergency reclaim feeder	2007		
MT23	Limestone drop to crusher house	2007		
MT24	Limestone emergency drop to crusher house	2007		
MT25	Limestone crusher drop to overland conveyors	2007		
MT26	Limestone overland conveyor drop to cross conveyor	2007		
MT27	Limestone emergency overland conveyor drop to cross conveyor	2007		
MT28	Limestone cross conveyor drop to Limestone Silo #1	2007		
MT29	Limestone overland conveyor drop to Limestone Silo #2	2007		
MT30	Limestone overland conveyor drop to Limestone Silo #3	2007		
MT33	Lime Silo	2007		
MT34	Gypsum Conveyor to Stockout	2007		
MT36	Gypsum Truck loading	2007		
MT35	Gypsum conveyor to Off-Spec Stockout	2007		
S01 – S12	Coal Silos 1 thru 12	2007		
SP01	Limestone Storage Pile	2007		
SP02	Gypsum Storage Pile	2007		
SP03	Coal Storage Pile	2007		
SP04	Petcoke Storage Pile	2007		
SP05	Off-Spec Gypsum Storage Pile	2007		

## Equipment Description Santee Cooper (Pee Dee Generating Station) Permit No. 1040-0113-CA Page 1 of 4

	EMISSION UNITS					
Unit ID	Unit Description	<b>Control Device Description</b>				
01	Boiler No. 1	ESP, Wet Limestone FGD, Selective Catalytic Reduction				
02	Boiler No. 2	ESP, Wet Limestone FGD, Selective Catalytic Reduction				
03	Material Transfer System - Coal	Baghouses				
04	Material Transfer System - Petcoke	Baghouse				
05	Coal / Petcoke Crus <mark>her</mark>	Baghouse				
06	Material Transfer System - Limestone	Baghouses				
07	Limestone Crusher	Baghouse				
08	Material Transfer System – Gypsum	N/A				
09	Material Transfer System – Fly Ash	Baghouses				
10	Material Transfer System – Bottom Ash	N/A				
11	Cooling Towers	N/A				

	CONTROL DEV	ICES	
Control Device ID	Control Device Description	Installation Date	Pollutant(s) Controlled
ESP 1	Electrostatic Precipitator	Future	$PM / PM_{10}$
Scrubber 1	Wet Limestone FGD	Future	$\mathrm{SO}_2$
SCR 1	Selective Catalytic Reduction	Future	$NO_X$
ESP 2	Electrostatic Precipitator	Future	$PM / PM_{10}$
Scrubber 2	Wet Limestone FGD	Future	$\mathrm{SO}_2$
SCR 2	Selective Catalytic Reduction	Future	$NO_X$
BH01	Baghouse	Future	$PM / PM_{10}$
BH02	Baghouse	Future	$PM / PM_{10}$
BH03	Baghouse	Future	$PM / PM_{10}$
BH04	Baghouse	Future	$PM / PM_{10}$
BH05	Baghouse	Future	PM / PM <sub>10</sub>
BH06	Baghouse	Future	$PM / PM_{10}$
BH07	Baghouse	Future	$PM / PM_{10}$
BH08	Baghouse	Future	$PM / PM_{10}$
BH09	Baghouse	Future	$PM / PM_{10}$
BH10	Baghouse	Future	$PM / PM_{10}$
BH11	Baghouse	Future	$PM / PM_{10}$
BH12	Baghouse	Future	$PM / PM_{10}$
BH13	Baghouse	Future	$PM / PM_{10}$
BH14	Baghouse	Future	PM / PM <sub>10</sub>
BVF01	Bin Vent Filter	Future	$PM / PM_{10}$
BVF02	Bin Vent Filter	Future	$PM / PM_{10}$
BV03	Bin Vent Filter	Future	PM / PM <sub>10</sub>
BH15	Baghouse	Future	PM / PM <sub>10</sub>
BH16	Baghouse	Future	$PM / PM_{10}$

### Equipment Description Santee Cooper (Pee Dee Generating Station) Permit No. 1040-0113-CA Page 2 of 4

	CONTROL DEVICES				
Control Device ID	Pollutant(s) Controlled				
BH17	Baghouse	Future	PM / PM <sub>10</sub>		
BH18	Baghouse	Future	$PM / PM_{10}$		
BH19	Baghouse	Future	$PM / PM_{10}$		
BH20	Baghouse	Future	PM / PM <sub>10</sub>		

	UNIT ID 01 – Boiler No. 1						
Equip ID	<b>Equipment Description</b>	Installation Date	Control Device ID	Stack ID			
B01	5700 x 10 <sup>6</sup> Btu/hr maximum rated heat input (660 MW nominal rated output) Boiler		ESP, Wet Limestone FGD, Selective Catalytic Reduction	S01			

	UNIT ID 02 – Boiler No. 2					
Equip ID	<b>Equipment Description</b>	Installation Date	Control Device ID	Stack ID		
B01	5700 x 10 <sup>6</sup> Btu/hr maximum rated heat input (660 MW nominal rated output) Boiler	Future	ESP, Wet Limestone FGD, Selective Catalytic Reduction	S02		

	UNIT ID 03 – Material Transfer System – Coal						
Equip ID	<b>Equipment Description</b>	<b>Installation Date</b>	Control Device ID	Stack ID			
MT01	Railca <mark>r Shake</mark> r	Future	BH01	MT01			
MT02	Conveyor Transfer to Stacker/Reclaimer	Future	BH02	C3A			
MT03	Emergency Stockout Drop to Pile	Future	N/A	C3B			
SP03	Coal Storage Pile	Future	N/A	Fugitive			
MT04	Transfer Tower Conveyors	Future	BH03	C2			
MT05	Emergency Reclaim	Future	BH04	RP			
MT08	Stacker/Reclaimer Stockout	Future	N/A	Fugitive			
MT09	Stacker/Reclaimer Reclaim	Future	N/A	Fugitive			
MT10	Conveyor to Crusher Tower	Future	BH05	C3A, C4B			
MT11	Conveyor to Transfer Tower	Future	BH06	C5A, C5B			
MT12	Conveyor to Bunkers	Future	BH07	C6A, C6B			
S01-S06	Bunker 1 Silos (6)	Future	BH08	S01-S06			
S07-S12	Bunker 2 Silos (6)	Future	BH09	S07-S12			

	UNIT ID 04 – Material Transfer System – Petcoke					
Equip ID Equipment Description Installation Date Control Device ID Stack II						
SP04	Petcoke Storage Pile	Future	N/A	Fugitive		
MT14	Petcoke Reclaim Feeder	Future	N/A	Fugitive		
MT15	Conveyor Transfer	Future	BH10	C4A		

# Equipment Description Santee Cooper (Pee Dee Generating Station) Permit No. 1040-0113-CA Page 3 of 4

UNIT ID 05 - Coal/Petcoke Crusher				
Equip ID	<b>Equipment Description</b>	Installation Date	Control Device ID	Stack ID
CR01	900 tons/hr Crusher	Future	BH11	CR01

	UNIT ID 06 – Material Transfer System – Limestone					
Equip ID	<b>Equipment Description</b>	Installation Date	Control Device ID	Stack ID		
MT20	Truck unloading to limestone pile	Future	N/A	Fugitive		
SP01	Limestone Storage Pile	Future	N/A	Fugitive		
MT21	Emergency limestone reclaim hopper loading	Future	N/A	Fugitive		
MT22	Emergency limestone reclaim feeder	Future	N/A	Fugitive		
MT23	Limestone drop to crusher house	Future	BH12	MT23		
MT24	Emergency limestone drop to crusher house	Future	BH13	MT24		
MT25	Limestone crusher drop to overland conveyors	Future	BH14	MT25		
MT26	Limestone overland conveyor drop to cross conveyor	Future	N/A	Fugitive		
MT27	Emergency limestone overland conveyor drop to cross conveyor	Future	N/A	Fugitive		
MT28	Limestone cros <mark>s conveyor drop to limestone Silo #1</mark>	Future	BVF01	MT28		
MT29	Limestone overland conveyor drop to limestone Silo #2	Future	BVF02	MT29		
MT30	Limestone overland conveyor drop to limestone Silo #3	Future	BVF03	MT30		

UNIT ID 07 – Limestone Crusher					
Equip ID	<b>Equipment Description</b>	Installation Date	Control Device ID	Stack ID	
CR02	125 tons/hr Crusher	Future	BH15	CR02	

UNIT ID 08 – Material Transfer System – Gypsum				
Equip ID	<b>Equipment Description</b>	Installation Date	Control Device ID	Stack ID
MT34	Conveyor to stockout	Future	N/A	Fugitive
MT35	Conveyor to off-spec stockout	Future	N/A	Fugitive
SP02	Gypsum storage pile	Future	N/A	Fugitive
SP05	Off-spec gypsum storage pile	Future	N/A	Fugitive
MT36	Truck loading	Future	N/A	Fugitive

	UNIT ID 09 – Material Transfer System – Fly Ash					
Equip ID	<b>Equipment Description</b>	<b>Installation Date</b>	Control Device ID	Stack ID		
MT16	Truck loadout 1	Future	BH16	MT16		
MT17	Truck loadout 2	Future	BH17	MT17		
MT31	Wet fly ash truck loadout 1	Future	N/A	Fugitive		
MT32	Wet fly ash truck loadout 2	Future	N/A	Fugitive		
MT18	Silo 1	Future	BH18	MT18		

# Equipment Description Santee Cooper (Pee Dee Generating Station) Permit No. 1040-0113-CA Page 4 of 4

UNIT ID 09 – Material Transfer System – Fly Ash				
Equip ID Equipment Description Installation Date Control Device ID Stack				Stack ID
MT19	Silo 2	Future	BH19	MT19
MT33	Lime Silo	Future	BH20	MT33

UNIT ID 10 – Material Transfer System – Bottom Ash						
Equip ID	<b>Equipment Description</b>	<b>Installation Date</b>	Control Device ID	Stack ID		
MT37	Bottom ash transfer point	Future	N/A	Fugitive		

UNIT ID 11 – Cooling Towers						
<b>Equip ID</b>	<b>Equipment Description</b>	Installation Date	Control Device ID	Stack ID		
CT01	287,100 gpm Cooling Tower 1	Future	N/A	Fugitive		
CT02	287,100 gpm Cooling Tower 2	Future	N/A	Fugitive		

#### **DATE**

Mr. Jay Hudson Santee Cooper – Pee Dee Generating Station One Riverwood Drive Moncks Corner, SC 29461-2901

**ATTENTION:** Jay Hudson

Dear Mr. Hudson:

Your permit application has been reviewed by our technical staff. Enclosed is Construction Permit No. 1040-0113-CA. Please note the conditions on this permit by reading it carefully. Pursuant to the South Carolina Administrative Procedures Act, this construction permit may be appealed in accordance with applicable state law. Please see the enclosed Notice of Appeal Procedure, effective July 1, 2006, for guidelines on appeal submittals.

In addition to this permit to construct, a permit to operate is required in accordance with the Air Pollution Control Regulations and Standards for the State of South Carolina. The regulations require a written request for a new or revised operating permit to cover any new, or altered source, postmarked no later than fifteen (15) days after the actual date of initial startup of each new or altered source unless a more stringent time frame is required.

Please examine this new permit carefully for errors or omissions and notify the appropriate staff member, Joe Eller, at (803) 898-3831, or by e-mail at: <a href="mailto:ellerjc@dhec.sc.gov">ellerjc@dhec.sc.gov</a>, promptly, if any are discovered.

Sincerely,

Rhonda B. Thompson, P.E., Director Engineering Services Division Bureau of Air Quality

RBT:<JCE:<TYPIST'S INITIALS>

#### Enclosure

cc: Buck Graham, Region 6, Florence EQC Office

Trinity Consultants
Permit File: 1040-0113
Main File: 1040-0113

#### **Notice of Appeal Procedure**

The following procedures are in effect beginning July 1, 2006, pursuant to 2006 Act No. 387:

- 1. This decision of the S.C. Department of Health and Environmental Control (Department) becomes the final agency decision 15 days after notice of the decision has been mailed to the applicant or respondent, unless a written request for final review is filed with the Department by the applicant, permittee, licensee, or affected person.
- 2. An applicant, permittee, licensee, or affected person who wishes to appeal this decision must file a written request for final review with the Clerk of the Board at the following address or by facsimile at 803-898-3393.

Clerk of the Board SC DHEC 2600 Bull Street Columbia, SC 29201

- 3. The request for final review should include the following:
  - a. the grounds on which the Department's decision is challenged and the specific changes sought in the decision
  - b. a statement of any significant issues or factors the Board should consider in deciding how to handle the matter
  - c. a copy of the Department's decision or action under review
- 4. In order to be timely, a request for final review must be received by the Clerk of the Board within 15 days after notice of the decision has been mailed to the applicant or respondent. If the 15th day occurs on a weekend or State holiday, the request is due to be received by the Clerk of the Board on the next working day. The request for final review must be received by the Clerk of the Board by 5:00 p.m. on the date it is due.
- 5. If a timely request for final review is filed with the Clerk of the Board, the Clerk will provide additional information regarding procedures.
- 6. The Board of Health and Environmental Control has 60 days from the date of receipt of a request for final review to conduct a final review conference. The conference may be conducted by the Board, its designee, or a committee of three members of the Board appointed by the chair.
- 7. If a final review conference is not conducted within 60 days, the Department decision becomes the final agency decision, and a party may request a contested case hearing before the Administrative Law Court within 30 days after the deadline for the final review conference.

The above information is provided as a courtesy; parties are responsible for complying with all applicable legal requirements.